

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT**

21ST AND N STREET REDEVELOPMENT

LINCOLN, NEBRASKA

PREPARED FOR

**THE CITY OF LINCOLN
COMMUNITY DEVELOPMENT**

REPORT COMPLETION DATE: OCTOBER 12, 2012

OLSSON PROJECT No. 012-2189



1.0 EXECUTIVE SUMMARY

This section summarizes the findings of the Phase II Environmental Site Assessment (ESA) conducted for the proposed redevelopment of the property at the southeast corner of the intersection of 21st and N Streets in Lincoln, Nebraska (see Figures 1 and 2). The Phase II ESA included soil and groundwater sampling to further evaluate the recognized environmental conditions (RECs) and Historic Recognized Environmental Conditions (HRECs) identified in the July 6, 2012 Phase I ESA (see Figure 3). The conditions include:

RECs

- Eight LUST sites due to their proximity to the Assessment Property. The potential exists for petroleum contamination to have impacted groundwater which may have migrated onto the Assessment Property. Vapor intrusion of petroleum products may be associated with these releases.
- The former car dealership at 2101 N Street. Further investigation is required as noted by the NDEQ LUST listing and is recommended for the hydraulic lifts.
- The filling station located in the southwest corner of Lot 2 in the 1928 and 1949 Sanborn Fire Insurance maps.
- The stained concrete floors in the City of Lincoln Parks and Recreation maintenance areas at 240 and 244 S 21st Street.
- The fuel tanks and dispenser island on Lot 2 due to the storage and dispensing of petroleum products.

HRECs

- The two petroleum related spills at the City Parks Department Refueling area.

The Phase II field investigation, which was conducted on September 19 and 20, 2012, included collection and laboratory analysis of soil and groundwater samples from ten locations. The results of the assessment indicate the following:

Soil Sample Results:

- No petroleum products or VOCs were detected in any of the soil samples retrieved from the project site.

Groundwater Sample Results:

- Petroleum Products were detected in TMW-3 only. Low level concentrations of ethylbenzene, total xylenes, TPH (gasoline range), and TEH (diesel range) were detected in the laboratory analysis. No concentrations exceeded risk-based screening levels.
- Three VOCs were detected in the groundwater samples. MTBE was detected in TMW- 2 at a level below the VCP remediation goal concentration. At TMW-3, sec-butylbenzene was detected at a level below the VCP remediation goal. 1,2-DCA was detected in the duplicate sample from TMW-2. The concentration of 1,2-DCA was greater than the VCP remediation goal of 0.005 mg/l.

The soil and groundwater analytical results presented in this Phase II ESA indicate the presence of petroleum and VOC contaminants. With the exception of 1,2-DCA, the contaminant levels detected were below NDEQ RBCA and VCP remediation goals. The detection of 1,2-DCA in the duplicate sample at TMW-3 indicates the presence of solvent contamination above the VCP remediation goals. It is Olsson's recommendation that three additional temporary

monitoring wells be installed. The three wells should be analyzed for VOCs to confirm or deny the presence of 1,2-DCA above the VCP remediation goals.

This report should be read in its entirety and an understanding of Phase II ESA findings should not be based solely on the executive summary.